

II. SUPPLEMENTAL RESPONSE TO OFFICE ACTION

A. Status of the Claims

Claims 1-53 were pending at the time of the Action. Claims 1-8, 10-11, and 22-53 stand rejected, and claims 9 and 12-21 are objected to. In the initial Amendment filed on February 2, 2005, claims 12 and 45 were amended and claims 54-108 were added. In the Supplemental Amendment contained herein, claims 1-53, 59-60, and 74-77 have been canceled, and claims 54, 58, 66-70, 98-99, 102, 107, and 108 have been amended. No new matter is added by the Supplemental Amendment, and support for the Supplemental Amendment can be found in the specification and claims as originally filed. Therefore, claims 54-58, 61-73, and 78-108 are pending after entry of the Supplemental Amendment.

B. The Obviousness Rejections Are Overcome

1. The Standard for Establishing a Prima Facie Case of Obviousness

It is well settled that "[t]he examiner bears the initial burden of factually supporting any *prima facie* case of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness." MPEP § 2142.

To establish a *prima facie* case of obviousness, the Action must show: (1) some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (2) a reasonable expectation of success; and (3) the prior art reference teaches or suggests all of the claim limitations. See *In re Vaeck*, 947 F.2d 488, (Fed Cir. 1991). With respect to element (1), "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the

combination.” MPEP § 2143.01. If any one of the three elements is missing, an obviousness rejection cannot be maintained.

2. Claims 54-58, 61-73, and 78-97 Are Not Obvious Over Lim in View of Audousset

Claims 1-8, 10-11, and 22-53 are rejected as obvious over Lim et al. (US 6,461,391) (“Lim”) in view of Audousset et al. (US 5,769,903) (“Audousset”). The Action alleges that Lim teaches all of the elements of the rejected claims except for a benzomorpholine coupler. The Action asserts that the deficient teachings of Lim are supplied by the teachings of Audousset. Applicants traverse. However, as described above, claims 1-53 have been canceled in the Amendment contained herein, rendering this rejection moot. Nevertheless, since pending claims 54-58, 61-73, and 78-97 are combinations of certain of claims 1-53, Applicants explain below that claims 54-58, 61-73, and 78-97 are not obvious over Lim in view of Audousset.

When obviousness is based on the teachings of multiple prior art references, the Action must establish some “suggestion, teaching, or motivation” that would have led a person of ordinary skill in the art to combine the relevant prior art teachings in the manner claimed. See *Tech Air, Inc. v. Denso Mfg, Mich, Inc.*, 192 F.3d 1353, 1358-60 (Fed. Cir. 1999); *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1572 (Fed. Cir. 1996). As stated by the Federal Circuit, “Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.” *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999). This is because “[c]ombining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint of piecing together the prior art to defeat patentability the essence of hindsight.” *Id.*

Thus, it has been consistently held that a person of ordinary skill in the art must not only have had some motivation to combine the prior art teachings, but some motivation to combine the prior art teaching in the particular manner claimed. See, e.g., *In re Kotzab*, 217 F.3d 1365, 1371 (Fed. Cir. 2000). Therefore, "particular finding must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed." *Id.* "In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with the knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998).

Applicants respectfully assert that the cited references do not supply a reason, suggestion, or motivation to combine Lim and Audousset. As stated in M.P.E.P. § 2143.01: "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." Any attempt to combine Lim and Audousset in the particular manner claimed would clearly be a product of hindsight reconstruction, which has been expressly forbidden by the Federal Circuit.

As described in the present specification, the subject matter of the present claims involves obtaining compositions for dyeing keratinous fibers capable of overcoming the disadvantages linked to the use of cationic tertiary paraphenylenediamines containing a pyrrolidine ring in an oxidation dyeing composition and, in particular, of leading to colorations with natural shades which are varied, chromatic, aesthetic and not very selective (page 3, lines 13-37). This technical problem has been solved by using in a dyeing composition at least one particular cationic paraphenylenediamine containing a pyrrolidine ring, at least one non-cationic tertiary paraphenylenediamine, and at least one specific benzomorpholine coupler.

Lim discloses quaternized pyrrolidine compounds of formula (I), which are said to be suitable primary intermediates for hair coloring compositions and systems for providing good oxidative coloration of hair and for providing acceptable light fastness and fastness to shampooing and to permanent wave treatment, in addition to providing a wide range variety of different color shades with various combinations of primary intermediates and coupler compounds. Lim mentions that these quaternary pyrrolidine compounds may be employed as the sole primary intermediate in hair coloring compositions (column 3, line 51) or with one or more suitable primary intermediates such as p-phenylenediamine derivatives, p-aminophenol derivatives, o-aminophenol derivatives, and heterocyclic derivatives (column 3, line 54 to column 4, line 41). The p-phenylenediamines derivatives disclosed in Lim comprise not only tertiary paraphenylenediamines but also primary p-phenylenediamines such as 2-methylbenzene-1,4-diamine or benzene-1,4-diamine (see the list of p-phenylenediamines in column 3, line 55 to column 4 line 18).

According to Lim, the quaternized pyrrolidine compounds alone or in combination with the above mentioned primary intermediates may be employed with couplers in hair coloring compositions such as resorcinol and naphthol derivatives, m-phenylenediamines derivatives, m-aminophenols derivatives, and heterocyclic derivatives (column 4, line 56 to column 5 line 63). Lim does not mention in its long list of heterocyclic derivatives (column 5, lines 45-63) the possibility of using a benzomorpholine coupler in a dyeing composition comprising quaternized pyrrolidine compounds and tertiary paraphenylenediamines derivatives. Lim also does not mention that the shades obtained with all of the compositions disclosed are natural, sufficiently intense and not very selective and does not suggest the disadvantages linked to the quaternized pyrrolidine compounds used.

Audousset deals with a composition for the oxidation dyeing of keratin fibres, and in particular human keratin fibres such as hair, comprising, in a suitable medium which is suitable for dyeing: (a) at least one oxidation base, (b) at least one suitable coupler selected from indole couplers, and (c) at least one additional heterocyclic coupler chosen from indole derivatives, benzimidazole derivatives, benzomorpholine derivatives, pyridine derivatives, indoline derivatives, and quinoline and sesamol derivatives. Audousset does not describe nor suggest that a cationic tertiary paraphenylenediamine containing a pyrrolidine ring could be used as an oxidation base in a dyeing composition comprising at least one indole coupler and at least one additional heterocyclic coupler.

Neither Lim nor Audousset teach that a dyeing composition comprising a cationic tertiary paraphenylenediamine containing a pyrrolidine ring leads to colorations with shades which are not sufficiently intense, not natural, and markedly selective (as is mentioned in the detailed description of the present specification at page 3, lines-13-27). As described in the specification, these disadvantages have been overcome by the dyeing composition of the present claims. Considering that neither Lim nor Audousset discloses these disadvantages, one of ordinary skill in the art would not have been motivated:

- to select a paraphenylenediamine among the long list of additional primary intermediates disclosed in Lim (first selection);
- to further select specifically a tertiary p-phenylenediamine among all the p-phenylenediamines disclosed (the examples in Lim disclose primary p-phenylenediamines and tertiary p-phenylenediamines) (second selection);
- to select, at the same time, a benzomorpholine coupler, which is not disclosed in the list of heterocyclic derivatives in Lim (third selection); and

- to select one the specific benzomorpholine couplers listed in present claim 54, as amended, among the entire list of couplers disclosed in Audousset (fourth selection)

in order to overcome the disadvantages disclosed in the present specification. Thus, since the technical problems raised in the present specification are not mentioned in Lim or Audousset, there is no motivation arising from either reference to perform these several selections to achieve the compositions of the present claims. Indeed, Audousset does not mention the use of a cationic tertiary paraphenylenediamine containing a pyrrolidine ring in a dyeing composition or the side effects linked to such a use. Lim merely presents a very long list of different combinations of hair coloring components employing a quaternized pyrrolidine primary intermediate (at least 116 combinations are disclosed).

All of the combinations in Lim are said to be performed in order to obtain a wide range of different color shades, not to overcome the disadvantages linked to the use of quaternized pyrrolidine compounds or to obtain natural shades which are markedly intense or not very selective. Therefore, in order to solve the technical problems described in the present specification, one of ordinary skill in the art would not have been inclined to choose a specific combination of hair coloring components among the entire combinations disclosed by Lim. Indeed, there is no motivation for a person skilled in the art to choose a p-phenylenediamine, nor is there any motivation to specifically select a tertiary paraphenylenediamine, especially in view of all of the combinations which are disclosed by Lim that incorporate a cationic tertiary paraphenylenediamine containing a pyrrolidine ring.

Furthermore, one of ordinary skill in the art would not have been inclined turn to Audousset to incorporate in a dyeing composition comprising the above association of dyes a specific coupler which is not disclosed in the long list of couplers used in Lim.

For at least these reasons, claims 54-58, 61-73, and 78-97 are not obvious over Lim in view of Audousset.

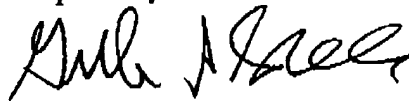
C. Claims 98-108 Are Allowable

As described in the initial Response, Applicants note that claims 98-108 were submitted in response to the Action's statement that claims 9 and 12-21 would be allowable if rewritten in independent form. Claim 98 is claim 9 rewritten in independent form, and claims 99-108 are claims 12-21 rewritten in independent form. Because the Action states that the prior art of record does not teach or disclose the limitations of these claims, Applicants submit that these claims are in condition for allowance.

D. Conclusion

While the initial Response was itself a full and complete response to the Office Action dated August 5, 2005, Applicants submit that this Supplemental Response further places the case in condition for allowance, and such favorable action is respectfully requested. The Examiner is invited to contact the undersigned Attorney at (512) 536-3035 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,



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Date: February 24, 2006